

What is claimed is:

1. A method for managing connection quality for a user in an optical communication system, the method comprising:

- 5 ascertaining high-level communication requirements and non-requirements of the user;
 determining a set of lower level communication services for the user based upon the high-level communication requirements and non-requirements of the user; and
10 obtaining the lower-level communication services for the user.

2. The method of claim 1, wherein determining a set of lower level communication services for the user based upon the high-level communication requirements and non-requirements of the user comprises:

- 15 mapping the high-level communication requirements and non-requirements to the lower level communication services.

3. The method of claim 1, wherein obtaining the lower level communication services for the user comprises:

- 20 interacting with a core optical communication network to obtain the lower level communication services for the user.

4. The method of claim 3, wherein the core optical communication network comprises an automatically switched optical network (ASON).

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5. The method of claim 1, wherein obtaining the lower level communication services for the user comprises:

- interacting with peer users to obtain the lower level communication services for the user.

6. An optical service agent for managing connection quality for a user in an optical communication system, the optical service agent comprising:

logic for ascertaining high-level communication requirements and non-requirements of the user;

5 logic for determining a set of lower level communication services for the user based upon the high-level communication requirements and non-requirements of the user; and

logic for obtaining the lower-level communication services for the user.

10 7. The optical service agent of claim 6, wherein the logic for determining a set of lower level communication services for the user based upon the high-level communication requirements and non-requirements of the user comprises:

15 logic for mapping the high-level communication requirements and non-requirements to the lower level communication services.

8. The optical service agent of claim 6, wherein the logic for obtaining the lower level communication services for the user comprises:

20 logic for interacting with a core optical communication network to obtain the lower level communication services for the user.

9. The optical service agent of claim 8, wherein the logic for interacting with a core optical communication network to obtain the lower level communication services for the user comprises a user-to-network interface (UNI).

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10. The optical service agent of claim 9, wherein the core optical communication network comprises an automatically switched optical/transport network (ASON), and wherein the UNI comprises an

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ASON UNI.

12. A device comprising:
a user application requiring communication services from an optical communication network; and
an optical service agent for managing connection quality for the user application.

13. The device of claim 12, wherein the optical service agent comprises:
logic for ascertaining high-level communication requirements and non-requirements of the user;

10 logic for determining a set of lower level communication services for the user based upon the high-level communication requirements and non-requirements of the user; and

logic for obtaining the lower-level communication services for the user.

15 14. The device of claim 13, wherein the logic for determining a set of lower level communication services for the user based upon the high-level communication requirements and non-requirements of the user comprises:

logic for mapping the high-level communication requirements and non-requirements to the lower level communication services.

20 15. The device of claim 13, wherein the logic for obtaining the lower level communication services for the user comprises:

logic for interacting with a core optical communication network to obtain the lower level communication services for the user.

25 16. The device of claim 15, wherein the logic for interacting with a core optical communication network to obtain the lower level communication services for the user comprises a user-to-network interface (UNI).

30 17. The device of claim 16, wherein the core optical communication network comprises an automatically switched optical/transport network (ASON), and wherein the UNI comprises an ASON UNI.

18. The device of claim 13, wherein the logic for obtaining the lower level communication services for the user comprises:

logic for interacting with peer users to obtain the lower level

5 communication services for the user.

19. The device of claim 18, wherein the logic for interacting with peer users to obtain the lower level communication services for the user comprises a peer-to-peer interface.

20. A system comprising:
an optical communication network; and
a network user coupled to the optical communication network,
wherein the network user comprises an optical service agent for obtaining
5 optical communication services from the optical communication network via
a user-to-network interface (UNI) and for managing connection quality for
the network user.

21. The system of claim 20, wherein the optical communication network
10 comprises an automatically switched optical/transport network (ASON), and
wherein the UNI comprises an ASON UNI.

22. The system of claim 20, wherein the optical service agent comprises:
logic for ascertaining high-level communication requirements and non-
15 requirements of the network user;
logic for determining a set of lower level communication services for
the network user based upon the high-level communication requirements and
non-requirements of the network user; and
logic for obtaining the lower-level communication services for the
20 network user.

23. The system of claim 22, wherein the logic for determining a set of lower
level communication services for the network user based upon the high-level
communication requirements and non-requirements of the network user
25 comprises:
logic for mapping the high-level communication requirements and
non-requirements to the lower level communication services.

24. The system of claim 22, wherein the logic for obtaining the lower level
30 communication services for the network user comprises:
logic for interacting with the optical communication network to obtain
the lower level communication services for the network user.

25. The system of claim 22, further comprising a number of peer network users.

5 26. The system of claim 25, wherein the logic for obtaining the lower level communication services for the user comprises:

logic for interacting with the number of peer network users to obtain the lower level communication services for the network user.

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